

ABSTRACT

A planar surface illuminator (20) for installation below a liquid crystal display panel includes a light guide plate (22) and a plurality of point light sources (21). The light guide plate has a bottom surface (223), an end surface (221) and a number of dot-patterns (23) formed on the bottom surface. The point light sources are positioned adjacent the end surface to irradiate the light guide plate. Darkened areas (223a) between the point light sources are lightened by placing special dot-patterns (23a) therein, which special dot-patterns are made of melamine-based fluorescent particles. The melamine-based fluorescent particles function as many small light sources, thus lightening the darkened areas. Therefore, the brightness of the planar surface illuminator is thereby balanced.